FINANCIAL LITERACY AND THE COST OF IGNORANCE

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The growing importance of financial literacy

A new economic landscape

Major changes that increase individuals’ responsibility for their financial well-being

- Changes in the pension landscape
  - More individual accounts and DC pensions

- Changes in labor markets
  - Divergence in wages – skills are critical

- Changes in financial markets
  - Greater complexity
  - More opportunities to borrow & in large amounts
Increase in individual responsibility

**Being our own CFO**

- **Individuals make many financial decisions**
  - Investment in education
  - Financial security after retirement
  - Investing in financial markets & other markets (buying a home, car, etc)

- **Not enough to look at asset side; liability side is equally important**
  - Increase in household debt
  - Debt normally incurs higher interest rates than what is earned on assets

- **Financial decisions are complex**
  - Many more financial products than in the past
“Financial literacy is knowledge and understanding of financial concepts and risks, and the skills, motivation and confidence to apply such knowledge and understanding in order to make effective decisions across a range of financial contexts, to improve the financial well-being of individuals and society, and to enable participation in economic life.”
Strong performance in financial literacy

- Shanghai-China
- Flemish Community (Belgium)
- Australia
- Estonia
- New Zealand
- Poland
- Latvia
- United States
- Slovenia
- Spain
- France
- Russian Federation
- Colombia
- Slovakia
- Italy
- Israel

Low performance in financial literacy

Mean score

Average performance of 15-year-olds in financial literacy
Differences only partially explained by GDP per capita

\[ R^2 = 0.1632 \]

GDP per capita explains only 16% of the country level variation in financial literacy
Relationship between socio-economic status and financial literacy, mathematics, and reading performance

- Financial literacy
- Mathematics
- Reading

Percentage of variation in performance explained by socio-economic status
How much do people know?

1. “Suppose you had $100 in a savings account and the interest rate was 2% per year. After 5 years, how much do you think you would have in the account if you left the money to grow?”

2. “Imagine that the interest rate on your savings account was 1% per year and inflation was 2% per year. After 1 year, with the money in this account, would you be able to buy…”

3. “Do you think the following statement is true or false? Buying a single company stock usually provides a safer return than a stock mutual fund.”
Data for the United States

The 2009 & 2012 National Financial Capability Study (NFCS)
Financial literacy across age groups

It pays to be financially literate

Debt and debt management

Investments

Planning and wealth accumulation
Financial Literacy and Mortgages

- Those with low literacy (numeracy) are more likely to be delinquent and default on subprime mortgages

- Those with low educational attainment are less likely to refinance mortgages during a period of falling interest rates

Source: Campbell (2006), Gerardi et al. (2013)
An earlier thinker on financial literacy

“An investment in knowledge pays the best interest.”

Benjamin Franklin, *The Way to Wealth*, 1758
Most recent research work

Financial knowledge & 401(k) investment performance

- Use administrative data from large financial institution
  - High quality data

- Designed survey that had the 3 financial literacy questions + questions on pension literacy
  - Higher financial literacy than in the US population

- Linked financial literacy to return on 401(k) investments
  - Unique data

- Those who are more financially literate earn 130 basis points more on their portfolio (adjusted for risk)
  - Similar evidence is emerging in other papers
Inequality

- Financial literacy can also be linked to wealth inequality
- Our paper shows that 30-40% of wealth inequality can be attributed to financial knowledge
What to do: The importance of scalability

Venues for financial education

- In schools
  - Easier to reach the young

- In the workplace
  - Easier to reach the adults

- In libraries, local communities, museums
  - Where people go to learn
Financial education in schools

Need to prepare the new generations

Financial education in school is critically important:

- Investment in higher education is one of the most important decisions the young face
  - Young people start their economic life in debt

- Need to be financially literate *before* engaging in financial transactions

- Provide a basis on which to build
  - It will be cheaper to do workplace financial education
A new course at the George Washington University

Financial Decision-Making: Implications for the Consumer and the Professional

- Cover personal finance with a rigorous approach
  - A quantitative approach to personal finance

- It incorporates some macro, accounting, and risk management

- Writing a new textbook on personal finance
  - Joint with a mathematician
Our (STAR) students

Undergraduates, graduate students and... athletes

Our students in and out of the classroom
A program for the young

Five steps to planning success

- We designed a program for young workers
  - They are the ones with low literacy

- Used new method of communication
  - A video

- Kept the message free of economic/finance jargon
  - Very important for women

- Covered concepts, such as risk diversification, in a simple story
Risk diversification = don’t put all your eggs in one basket

Link to Video http://www.rand.org/labor/centers/financial-literacy.html
We measured whether it worked

- Tested interventions using the RAND American Life Panel
- Baseline questions on 5 concepts
- Randomly assigned
  - Intervention group
    - Video only, narrative only, video & narrative
  - Control group
    - No intervention
- Repeated 5 concepts questions
Findings

- After being exposed to videos, the performance on financial literacy questions (general knowledge and self-efficacy) improved.

- While young were targeted, the videos affected all age groups.
A program for any company

- Ten steps divided into 3 stages: Basic, Intermediate, and Advanced

- Customize the program for employees
  One size does not fit all

- The Employee Checklist
  Ten guidelines with implementation tips to improve employees’ financial fitness
A saving museum in Turin, Italy
An International Federation of Finance Museums: four founders – now extended to many museums
Final thoughts

- **Financial literacy is like reading and writing**
  - As it was not possible in the past to participate in society without being able to read and write, so it is not possible to thrive in today’s society without being financially literate.

- **Building human capital for the 21st century**
  - Everyone deals with finance and finance is sufficiently complex that we cannot leave it to the individual to learn by himself/herself.
"Well-informed consumers, who can serve as their own advocates, are one of the best lines of defense against the proliferation of financial products and services that are unsuitable, unnecessarily costly, or abusive."

*Ben Bernanke, Former Chairman of the Fed*
Financial illiteracy is a complex but solvable problem

“It always seems impossible until it is done.”

_Nelson Mandela_
Contact and further information

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